<u>IN THE CLAIMS:</u>

1   1.   A method of texture filtering, comprising the steps of:

2   receiving input information relating to polygon and texture data; and

3   morphing a texture reconstruction filter characteristic based upon the input

4 information so that after subsamples are aggregated, an effective filter

5 characteristic matches the texture reconstruction filter characteristic of a texture

6 reconstruction filter used for coarse sampling.

1   2.   The method of claim 1 wherein the input information relates to a rate of

2 sampling of the polygon data.

1   3.   The method of claim 1 wherein the input information relates to a degree of

2 warping per texture coordinate.

1   4.   The method of claim 1 wherein the effective filter characteristic matches the

2 characteristic of a bilinear filter.

1   5.   The method of claim 1 wherein the effective filter characteristic matches the

2 characteristic of a combination of a bilinear filter and a box filter.

1   6.   The method of claim 1 wherein the effective filter characteristic matches the

2 characteristic of a combination of a linear filter between MIP levels and a

3 combination of a bilinear filter and a box filter.

1   7.   The method of claim 1 wherein the morphing of the texture reconstruction

2 filter characteristic is performed in a continuous manner.

1   8.   The method of claim 1 wherein the morphing of the texture reconstruction

2   filter characteristic is determined by a value $\beta = \min(\delta * (n-1)/n, 1.0)$ wherein δ is a

3   degree of warping per texture coordinate and n is a sampling rate of the polygon

4   data.

1   9.   An electronically-readable medium having embodied thereon a program, the

2   program being executable by a machine to perform method steps for texture

3   filtering, the method steps comprising:

4   receiving input information relating to polygon data and texture data; and

5   morphing a texture reconstruction filter characteristic based upon the input

6   information so that after subsamples are aggregated, an effective filter

7   characteristic matches the texture reconstruction filter characteristic of a texture

8   reconstruction filter used for coarse sampling.

1   10.   The electronically-readable medium of claim 9 wherein the input

2   information relates to a rate of sampling of the polygon data.

1   11.   The electronically-readable medium of claim 9 wherein the input

2   information relates to a degree of warping per texture coordinate.

1   12.   The electronically-readable medium of claim 9 wherein the morphing of the

2   texture reconstruction filter characteristic is performed in a continuous manner.

1   13.   An apparatus for texture filtering, comprising:

2   a first module adapted to detect a sampling rate n of polygon data;

3   a second module coupled to the first module adapted to select a filtering

4   mode based upon a sampling rate n of polygon data and a degree of warping δ per

5   texture coordinate; and

6   a third module coupled to the second module adapted to compute texel

7   blending factors based on the filtering mode determined by the second module.

1   14.   The apparatus of claim 13 wherein the second module selects a filtering

2   mode based upon a value $\beta = \min(\delta * (n-1)/n,\ 1.0)$.

1   15.   The apparatus of claim 13 further comprising a fourth module coupled to

2   the third module adapted to detect a degree of warping δ per texture coordinate.

1   16.   An apparatus for texture filtering comprising:

2   a filter select module adapted to select a filtering mode based upon a

3   sampling rate n of polygon data; and

4   a texel blending module coupled to the filter select module adapted to

5   compute texel blending factors based on the filtering mode determined by the

6   filter select module.

1   17.   The apparatus of claim 16 wherein the filter select module determines a

2   filter characteristic of a selected filtering module based upon the sampling rate n

3   and a degree of warping δ per texture coordinate.

1   18.   The apparatus of claim 16 wherein the filter select module selects the

2   filtering mode based upon a value $\beta = \min(\delta * (n-1)/n,\ 1.0)$.

1   19.   An apparatus for texture filtering, comprising:

2   means for receiving input information relating to polygon data and texture

3   data; and

4   means for morphing a texture reconstruction filter characteristic based

5   upon the input information so that after subsamples are aggregated, an effective

6   filter characteristic matches the texture reconstruction filter characteristic of a

7   texture reconstruction filter used for coarse sampling.